

# Deconstruction & Energy Efficient Retrofits

Iowa Central Community, Fort Dodge, IA  
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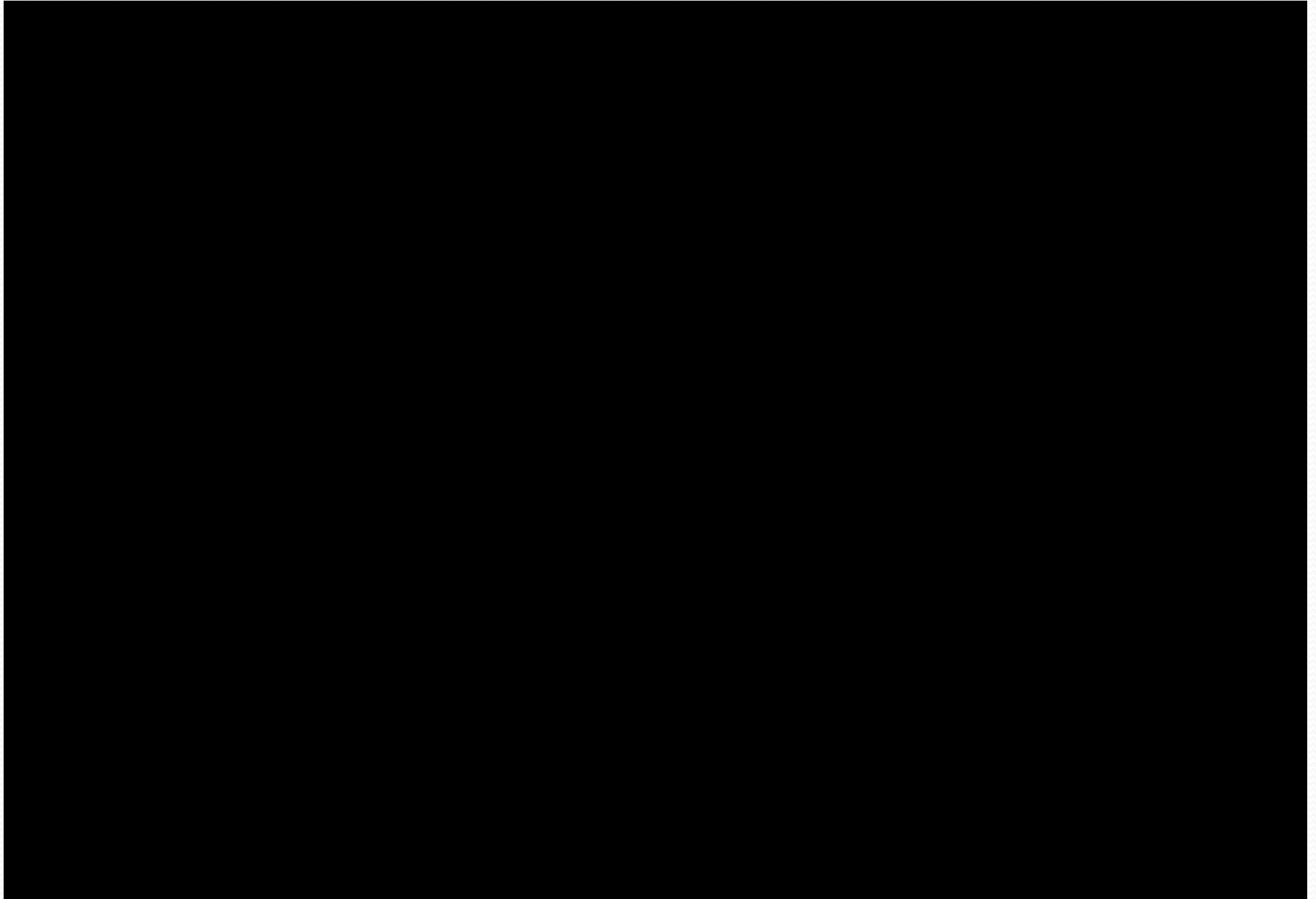
**Law of Conservation of Mass (Matter)**  
“matter is neither created nor destroyed”  
so... there is no “away” to throw something.  
-Antoine Lavoisier

# What is Deconstruction?

- Deconstruction-[dee-kuhn-struhk-shuhn]-The process of systematically removing a building or structure by taking it apart in the reverse order of construction (with a goal of maximizing reuse and recycling)



# Deconstruction?





# Humane Society-Fort Dodge





# Humane Society

















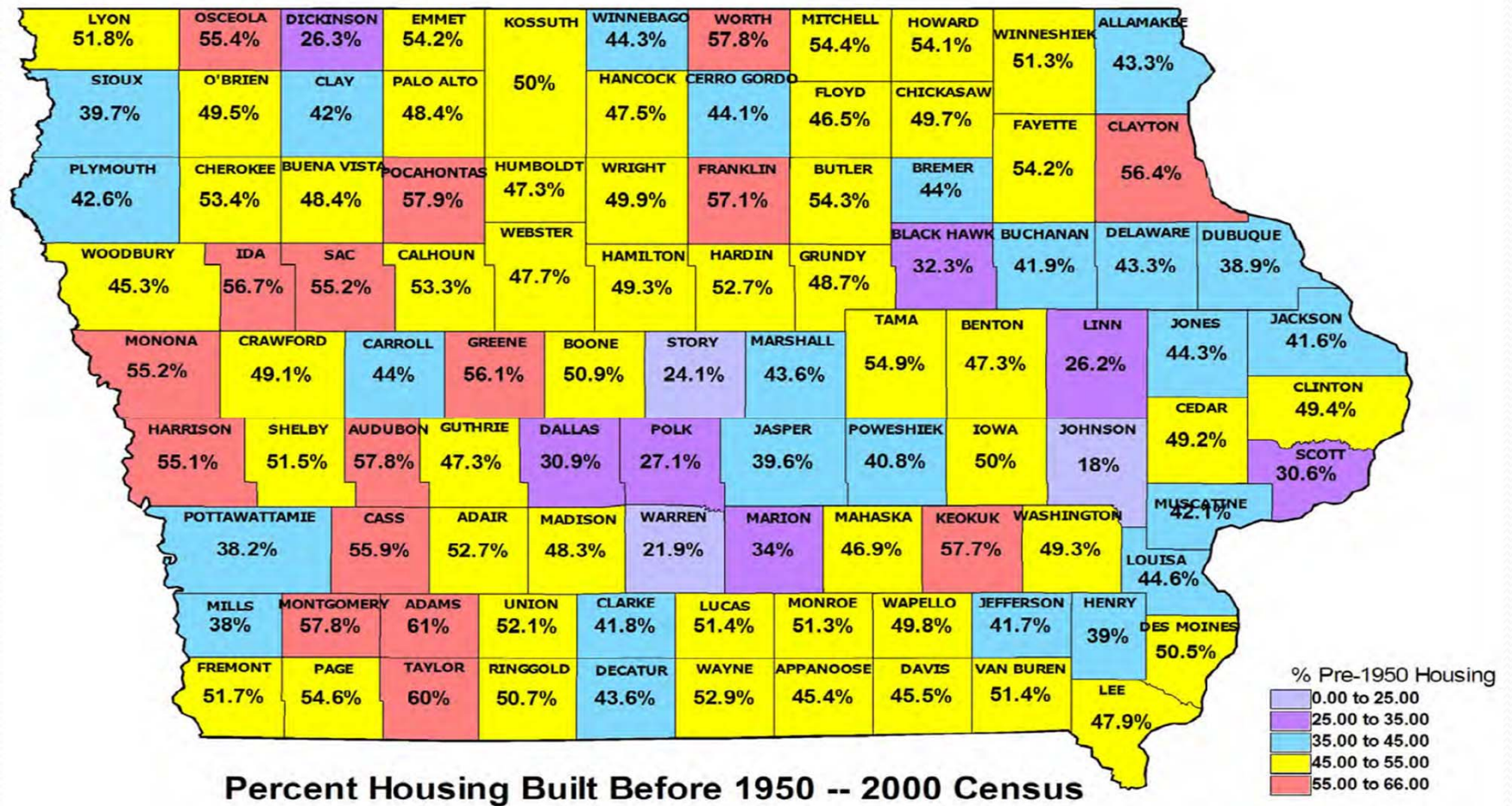




# Deconstruction works in Iowa...

- Iowa has the third highest concentration of dilapidated housing stock in the nation
- Over half (51%) of rural Iowa homes meet the criteria of dilapidated housing
- 1/3 of Iowa housing need to be rehabilitated to some extent, to make them energy efficient and truly affordable





# Economically does Deconstruction work?.....

- Demolition \$6-\$12 sq ft with landfill fees
  - Takes to 2-3 workers (higher paid)
- Deconstruction \$3-\$8 sq ft
  - Deconstruction yields a product at completion
  - Sale or reuse of product
  - Takes 4-8 workers
  - Is truly sustainable or “green”





# Obstacles of Deconstruction

- Hard Work
- Weak materials reuse infrastructure
- Landfill tipping fees inexpensive for now.....
- New industry
- Takes longer than demolition



# Savings

- The deconstruction of a typical **2,000 square foot** wood frame home can yield **6,000 board feet** of reusable lumber.
- This is equivalent to **33** mature trees, or the yearly output of **10 acres** of planted pine (7 football fields).
- The average American home (2,000 square feet give or take), if demolished, would produce about **10,000 cubic feet** of debris. 30'x30'x11'



# Deconstruction and Renovation

ICCC and City of Fort Dodge

Citizen's Central





# Future project

1100 Central Fort Dodge







# Questions